2(b)

CANTON DROP FORGE

TELECOPIER COVER SHEET

PLEASE DELIVER THE FOLLOWING PAGES TO:

NAME: Mr. O'Sullivan

FIRM: Motor Castings

CITY:

PHONE: (414) 476-1434 FAX: (414) 476-2845

FROM:

NAME: Keith Housekneckt

FIRM: CANTON DROP FORGE

CITY: Canton, OH

TOTAL NUMBER OF PAGES 11 — 1 INCLUDING COVER SHEET.

WE ARE TRANSMITTING ON THE FOLLOWING:

DATE: 2/9/98

TIME: 11:30 — 5:05

IF YOU DO NOT RECEIVE ALL PAGES - PLEASE CALL BACK AS SOON AS POSSIBLE.

TELEPHONE: (330) 477-4511, EXT. 188

(1) 4 Nov 1997, Parsons Letter to Rick, Lagoon #2, NFA
(2) 24 Nov 1997, Jerry Letter to Mr Corder, " , "
(3) 9 Feb 1998, Keith Lagoon #1 Update
(4) Feb 1993, Hammontree Report, Lagoon #3 water

→ (1) Parsons 9 Feb Letter

November 24, 1997

2(b), 1(c)

TO: W. K. Cordier

FROM: J. P. Bressanelli

SUBJECT: Current Status Audit Action Plan

The following is the current status and forecasted costs to be incurred with the subject plan.

Lagoon 1:

Beaver Excavating began their work to restore *Lagoon 1*, but work was temporarily suspended because the banks of the lagoon were too steep for good structural stability of the clay lining and treated biocell materials. The decision has now been made to use some additional remnant material from the biocell area, after treatment with lime and flyash for structural stability, and some clean fill from an outside source to complete the project. Also, two catch basins near *Lagoon 1* are desirable to prevent erosion from surface waters and to better channel storm water to the lagoon. Finally, to also prevent erosion of the clay layer where storm water lines exit into the lagoon, Parsons is recommending rip raps under each pipe. Costs to be incurred for the project are as follows:

• Original Contract (no payment made as yet)		$219,600
• Net Prior Additions to the Project		2,000
• Incremental Cost for Decreasing Slope of the Lagoon		22,000
• Two Catch Basins with Lines to Lagoon 1		3,900
• Rip Rap Under Pipes		2,000
• Parson Project Supervision		6,000
• Bad Weather Contingencies	- Beaver	8,000
	- Parsons	1,500
TOTAL		**$265,000**

Parson's work will include supervision of the removal and treatment of the remnant biocell material, approval of clean fill from an outside source and supervision of the installation of the fill materials and the clay lining in the remainder of the lagoon. The $9,500 contingencies relate to the possible disruption of construction work due to

rain, snow, heavy freeze, etc. This $9,500 could be avoided by postponing further work until spring.

Lagoon 2:

According to Parsons, current *EPA* regulations require us to stop the discharge of oil bearing waste streams to lagoons, but do not require remediation of oil impacted soil on the bottom or around the lagoon banks. Therefore, I recommend that we do not remediate the oily soil on the banks or bottom of *Lagoon 2* at this time.

As part of the Audit Action Plan, we have been considering various means for eliminating oil from the condensate from our steam exhaust system (the main source of the oil discharge to *Lagoon 2*). A prototype separator tank has been installed, but most, if not all, of the oil is emulsified with the water. All methods proposed for eliminating the emulsified oil have been very complex and expensive.

At this point, we believe that the most cost effective way to deal with the oil in the effluent from the boiler house separator is to combine it with an oil-free process stream to dilute it to an acceptable level for potential discharge to the municipal sewer system.

Presently, we are discharging the stream from our hot process softener in the boiler house to the sewer system, with the authority's approval. However, recently the operator of the sewer lines found thick lime deposits in the sewer and traced it back to CDF. We must eliminate lime carryover to the sewer system from the hot process softener or find a new place to discharge this stream.

Current thinking is, to eliminate the lime in the discharge from the hot process softener with a system proposed by *Diversey Water Technologies* and *U.S. Filter* and then combine this oil-free stream with the oil bearing stream from the boiler water separator, diluting the oil content to a level hopefully acceptable to the *Massillon Sewerage Authority*. *Massillon*'s approval of the volume and composition of the combined streams will be required. The estimated cost of the lime removal system is $75,000 to $90,000, with an additional $10,000 to $20,000 for hardware and plumbing to combine the two.

If we complete remediation of *Lagoon 1*, as outlined above, for $265,000 or less and merge the boiler house effluent with an oil-free stream from our hot process softener (after installing a needed lime removal system) at a cost of $110,000 or less, the total should be below $375,000.

On November 21, there was $140,000 left in the Escrow Account, which will be available to cover 60 percent of the next $233,300 of costs. Therefore, it looks like the

Escrow Fund will be reduced to zero by the end of the year upon completion of the restoration of *Lagoon 1* on December 15, weather permitting.

JPB/mkb

Jerry

STATUS LAGOON #1 2(b)

FEB 9 1998

WORK TO BE DONE

TRANSFER PUMP

MOUNT & TEST FLOAT

TURN INLET STAND PIPE & VALVE 90°

CUT AND REUSE INLET ELEVATION

CHANGE CONCENTRIC BUSHING TO ECCENTRIC

ADD DISCHARGE RETURN LINE

CORRECTION OF LAGOON LINER MOVEMENT

TEST MAT'L IN AREA TO ASSURE QUALITY

CHECK TEXTURE OF FILL SURFACE

GRADE & COMPACT AREA

ASSURE DRAINAGE CUT OFF OUTSIDE

CATCH BASIN DRAIN LINE TO LAGOON

FINAL GRADING OF PERIMETER

REGRADE TOP SURFACE TO CONTROL DRAINAGE

INSTALL VISUAL WARNING DEVICE *

* THIS IS THE ONLY ITEM THAT CDF IS PLANNING ON PAYING FOR AT THIS TIME.

Keith

CDF002127

PARSONS ENGINEERING SCIENCE, INC.
A UNIT OF PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP INC

19101 Villaview Road, Suite 301 • Cleveland, Ohio 44119 • (216) 486-9005 • Fax (216) 486-6119
PARESCL/0298Dee/EJK7-80

9 February 1998

2(b)

Mr. Keith Houseknecht
CANTON DROP FORGE, INC.
4575 Southway Street, SW
Canton, Ohio 44706

Reference: Status of Lagoon No. 1 Reconstruction Project

Dear Mr. Houseknecht:

In accordance with our discussions earlier today (i.e., 9 February 1998), I can confirm that the Lagoon No. 1 reconstruction project at Canton Drop Forge, Inc. is substantially complete. Successful start-up of the reconstructed Lagoon No. 1 and pumping system was achieved on 8 January 1998. Other than a few punch-list items, which remain to be completed with respect to the pumping system and finish-grading of the general lagoon area, and a presumably minor investigative and repair action required for the pond lining, the work is essentially complete.

If additional details are required concerning the status of this project, please contact me at (216) 486-9005.

Very truly yours,

PARSONS ENGINEERING SCIENCE, INC.

Ed Karkalik

Edward J. Karkalik, PE

EJK/dee
cc: Mr. Sam Saad
File 73139703000

PARSONS

(2) JPB

additions etc where needed. Would like this back ASAP. Jim

9/30/95

CANTON DROP FORGE, AUDIT ACTION PLAN

SEPTEMBER 30, 1995 PROGRESS REPORT

2(b), 1(c)

Following is a progress report on each of the three projects described in the March 31, 1993 Canton Drop Forge Audit Action Plan.

Project I - PCB Remediation

The plan was to complete soil test, specify scope, prepare a remediation action plan and file that plan (if required) with OEPA. Actual remediation activity was to occur after receiving OEPA approval of the plan.

After detailed consultation with Hammontree & Associates, R&R International and Day, Ketterer, plus individual inquiries elsewhere, plans for PCB remediation were abandoned. That decision followed verification that regulations would permit use of refill soil containing higher levels of PCB than the very low PCB levels in the "contaminated" soil to be removed.

No further action contemplated on Project I.

Project II - Remediation of Area Near Hole 8

There has been no further action on this project, because CDF technical personnel and the external consultants have had to concentrate all of their attention on the (more complex than envisioned) work of Project III (see below).

Project III - Pretreatment System/Lagoon Remediation

Phase A - Task 1 of this project comprising three subtasks, is for delineation of scope, concept development, final design and permitting of a new process water pretreatment system.

Subtask (1a) for determining and/or estimating effluent flow rates is completed.

Subtask (1b) for analyses and determination of constituents of effluents and surface emulsions from lagoon 1 is also completed (see Phase B, Task 1). The only problem constituents found were oil/grease and residues (suspended solids).

Subtask (1c), is for selection of potential designers of (and equipment producers for) the pretreatment system, obtaining their quotations, selecting the preferred designer, agreeing on a final design and filing for a permit to install, if required.

Requests for quotes were sent to three potential builders of the pretreatment system and responses were received from two (FBA Environmental and Workman Industrial Services). Both bidders quoted two pretreatment systems--a yard separator to process discharge from the plant proper with forge shop as the major effluent source and a boiler house separator to handle discharge primarily from that source. Both bidders accepted the specified 10 PPM maximum oil content for treated discharge from the yard separator, but neither would accept nor, at this time, agree to a maximum oil content of treated effluent from the boiler house separator. Both agree that separating oil that is emulsified from spent steam condensate is extremely difficult and may require a complex system. Workman, the lower of the two bidders, was selected to install the yard separator (Phase A) and to work with us further in developing an effective, reasonably priced boiler house separator system (Phase B). A contract for $130,000 was signed with Workman for Phase A and their work, to be completed by January 22, 1996 is underway. The contract specifies that Workman is responsible for all required permits, including those of the OEPA.

To assist in developing an appropriate boiler house separator system, we hired a consultant who was involved with a boiler house oil separation project at Wyman-Gordon, the largest forging company in the U.S. He is compiling information from that system for our review.

Complicating matters, OEPA has recently issued a tentative regulation limiting oil content of discharged water to 35 PPM. This level is readily attainable for pretreated discharge from the yard separator system, but is a serious concern, as indicated above, for pretreated effluent from the boiler house separator system.

The current system design calls for retention of all three existing lagoons for control of process water and steam condensate, because Massillon water department continues to be unwilling to accept the pretreated discharge.

Phase A - Task 2 is for construction and installation of the pretreatment system. As indicated above, Workman has been awarded a contract to install the yard separator system and their work on this system is now underway and will be completed by January 22, 1996. Construction of the boiler house separator system, has been delayed, pending resolution of several complex technical questions concerning possible process techniques and treatment levels attainable in removing emulsified oil from the steam condensate from the boiler house. Workman and an independent consultant are participating in this resolution, as indicated above.

Phase B - Task 1 for removal and proper disposal of emulsions from the surface of the two lagoons is complete.

Phase B - Task 2 to determine volume and character of affected materials in the lagoons is now complete.

Phase B - Task 3 for remediation of lagoons 1 and 2 is underway. A contract of $222,500 was awarded to Critter Company, the lower of two bidders, for bioremediation of an assumed 9,000 cubic yards of sludge and oil contaminated soil from the two lagoons. Thus far, lagoon 1 has been emptied of oil, water and contaminated soil and any residual material in the cavity is being bioremediated in situ. Contaminated soil from the cavity was transported to another location on CDF property where it is being bioremediated. Critter guarantees that treated soil will contain less than 300 PPM of hydrocarbons, a threshold level used by Fire Marshals in assessing contamination from underground storage tanks. The process will take up to 18 months.

While lagoon 1 is being remediated, lagoon 2 is being used as the receptacle for process water discharge. Therefore, bioremediation of lagoon 2 will be delayed until the yard and the boiler house separator systems have been installed and bioremediation of the banks and contaminated soils of lagoon 1 has been completed.

3/26/96

CANTON DROP FORGE

William K. Cordier
Chairman

March 26, 1996 2(b), 1(c)

Mr. John L. Hobey
President
The Olofsson Corporation as
CEI Group Agent
P.O. Box 27308
Lansing, MI 48909

Dear Jack:

Following is a progress report on each of the three projects described in the March 31, 1993 Canton Drop Forge Audit Action Plan.

Project I - PCB Remediation

The plan was to complete soil tests, specify scope, prepare a remediation action plan and file that plan (if required) with OEPA. Actual remediation activity was to occur after receiving OEPA approval of the plan.

After consultation with Hammontree & Associates, R&R International and Day, Ketterer, plus individual inquiries elsewhere, plans for PCB remediation were abandoned. That decision followed verification that regulations would permit use of refill soil containing higher levels of PCB than the very low PCB levels in the "contaminated" soil to be removed.

No further action contemplated on Project I.

Project II - Remediation of Area Near Hole 8

There has been no further action on this project, because CDF technical personnel and the external consultants have had to concentrate all of their attention on the (more complex than envisioned) work of Project III (see below).

Project III - Pretreatment System/Lagoon Remediation

Phase A - Task 1 of this project comprising three subtasks, is for delineation of scope, concept development, final design and permitting of a new process water pretreatment system.

4575 Southway Street S.W. • P.O. Box 6902 • Canton, Ohio 44706-0902 • (216) 477-4511 • FAX (216) 477-2046

Subtask (1a) for determining and/or estimating effluent flow rates is completed.

Subtask (1b) for analyses and determination of constituents of effluents and surface emulsions from lagoon 1 is also completed (see Phase B, Task 1). The only problem constituents found were oil/grease and residues (suspended solids).

Subtask (1c), is for selection of potential designers of (and equipment producers for) the pretreatment system, obtaining their quotations, selecting the preferred designer, agreeing on a final design and filing for permits to install, if required.

Subtask (1c) continued

Requests for quotes were sent to three potential builders of the pretreatment system and responses were received from two (FBA Environmental and Workman Industrial Services). Both bidders quoted a pretreatment system comprising two separators------"separator Y" to process discharge from the forge shop and nearby areas of the plant, and "separator B" to handle discharges from the remainder of the plant. Both bidders accepted the specified 10 PPM maximum oil content for treated discharge from separator Y, but neither would agree to a maximum oil content of treated effluent from separator B, which contains oil that is emulsified and is therefore extremely difficult to isolate and separate. Workman, the lower of the two bidders, was selected to install separator Y and to work with us further in developing an effective, reasonably priced separator B system. A contract for $130,000 was signed with Workman for construction and installation of separator Y.

To assist in developing an appropriate design for separator B, a consultant with prior related experience was employed. Also, a number of companies that claimed to have systems that might be suitable for our needs were contacted. A specification and bid request was developed and issued for this separator (B).

Phase A - Task 2 is for construction and installation of the pretreatment system. As indicated above, Workman was awarded a contract to install separator Y, and installation was completed in late January. Some

lingering operational problems have been encountered with the system and are being corrected. Nevertheless, the system is being used to treat effluent from the plant proper prior to discharge into lagoon 2.

Construction of separator B was delayed, pending resolution of several technical questions concerning possible techniques and treatment levels attainable in removing oil from emolsifications. These questions and issues have been partially resolved to allow preparation of a specification and RFQ (request for quote) for the work. The RFQ was sent to eight firms and their bids are due by March 22, 1996.

Phase B - Task 1 for removal and proper disposal of emulsions from two lagoon surfaces is complete for lagoon 1. The remaining part of this task, involving lagoon 2, will begin after the pretreatment system is operating and discharges of (clear) effluent can be diverted to lagoon 1.

Phase B - Task 2 to determine volume and character of affected materials in the lagoons is now complete.

Phase B - Task 3 for remediation of lagoons 1 and 2. Last year a contract for $222,500 was awarded to Critter Company, the lower of two bidders, for bioremediation of an estimated 9,000 cubic yards of sludge and oil contaminated soil from the two lagoons. Lagoon 1 was emptied of oil, water and contaminated soil and residual material in the cavity is being bioremediated in situ. Contaminated soil was transported and is being treated in a bio-cell located on CDF property. Critter's contract guarantees that the treated soil will contain 300 PPM maximum hydrocarbons, a threshold limit used by fire marshalls in assessing contamination from underground fuel-bearing storage tanks. The process, to take up to 18 months, is highly temperature dependent, virtually stopping during the winter. The process will resume when warmer weather permits.

While lagoon 1 is being remediated, lagoon 2 is being used as a receptacle for process water discharge. Once lagoon 1 is ready to receive clean effluent, the emptying and boiremediation of lagoon 2 will be undertaken.

Best regards,

Bill

WKC:mp
cc: FHZollinger
JPBressanelli
K.Houseknecht

CANTON DROP FORGE

William K. Cordier
Chairman

2(b), 1(c)

March 27, 1997

Mr. John L. Hobey
President
The Olofsson Corporation as
CEI Group Agent
P.O. Box 27308
Lansing, MI 48909

Dear Jack:

Following is a progress report on each of the three projects described in the March 31, 1993 Canton Drop Forge Audit Action Plan.

Project I - PCB Remediation

The plan was to complete soil tests, specify scope, prepare a remediation action plan and file that plan (if required) with OEPA. Actual remediation activity was to occur after receiving OEPA approval of the plan.

After consultation with Hammontree & Associates, R & R International and Day, Ketterer, plus individual inquiries elsewhere, plans for PCB remediation were abandoned. That decision followed verification that regulations would permit use of refill soil containing higher levels of PCB than the very low PCB levels in the "contaminated" soil to be removed.

No further action contemplated on Project I.

Project II - Remediation of Area Near Hole 8

There has been no further action on this project, because CDF technical personnel and the external consultants have had to concentrate all of their attention on the (more complex than envisioned) work of Project III (see below).

Project III - Pretreatment System/Lagoon Remediation

Phase A - Task 1 of this project comprising three subtasks, is for delineation of scope, concept development, final design and permitting of a new process water pretreatment system.

Subtask (1a) for determining and/or estimating effluent flow rates is completed.

4575 Southway Street S.W. • P.O. Box 6902 • Canton, Ohio 44706-0902 • (216) 477-4511 • FAX (216) 477-2046

Subtask (1b) for analyses and determination of constituents of effluents and surface emulsions from lagoon 1 is also completed (see Phase B, Task 1). The only problem constituents found were oil/grease and residues (suspended solids).

Subtask (1c) is for selection of potential designers of (and equipment producers for) the pretreatment system, obtaining their quotations, selecting the preferred designer, agreeing on a final design and filing for permits to install, if required.

Subtask (1c) continued

Requests for quotes were sent to three potential builders of the pretreatment system and responses were received from two (FBA Environmental and Workman Industrial Services). Both bidders quoted a pretreatment system comprising two separators -- "separator Y" to process discharge from the forge shop and nearby areas of the plant, and "separator B" to handle discharges from the remainder of the plant. Both bidders accepted the specified 10 PPM maximum oil content for treated discharge from separator Y, but neither would agree to a maximum oil content of treated effluent from separator B, which contains oil that is emulsified and is therefore extremely difficult to isolate and separate. Workman, the lower of the two bidders, was selected to install separator Y and to work with us further in developing an effective, reasonably priced separator B system. A contract for $130,000 was signed with Workman for construction and installation of separator Y.

To assist in developing an appropriate design for separator B, a consultant with prior related experience was employed. Also, a number of companies that claimed to have systems that might be suitable for our needs were contacted. A specification and bid request was developed and issued for this separator (B).

Phase A - Task 2 is for construction and installation of the pretreatment system. As indicated above, Workman was awarded a contract to install separator Y, and installation was completed in January, 1996. The system is operational and is being used to treat effluent from the plant proper prior to discharge into lagoon 2. This phase is now considered complete.

An RFQ for design and construction of separator B was sent to eight firms and their responses were due on March 22, 1996. All of the eight firms declined to quote, indicating that they were not willing to agree to a maximum level of oil in the discharge from a system because they were all uncertain of the potential efficiencies of any system in removing emulsified oil from the process stream. Numerous discussions and meetings have been held with potential system designers and a plan has been developed to install and operate a prototype system to provide a basis for system efficiency determinations. The prototype system involved the installation by CDF personnel of piping, pump and tank to accumulate the discharge from the boiler house and other related sources, pass it through a coalescing oil/water separator and monitor effluent oil content to determine the type and size of additional components needed to meet OEPA discharge requirements. The prototype system is operational and samples of effluent are being taken to establish baseline conditions.

Phase B - Task 1 for removal and proper disposal of emulsions from two lagoon surfaces is complete for lagoon 1. The remaining part of this task, involving lagoon 2, will begin after the separators Y and B are both operating and discharges of (clear) effluent can be diverted to lagoon 1 or 3.

Phase B - Task 2 to determine volume and character of affected materials in the lagoons is now complete.

Phase B - Task 3 for remediation of lagoons 1 and 2. Last year a contract for $222,500 was awarded to Critter Company, the lower of two bidders, for bioremediation of an estimated 9,000 cubic yards of sludge and oil contaminated soil from the two lagoons. Lagoon 1 was emptied of oil, water and contaminated soil and residual material in the cavity is being bioremediated in situ. Contaminated soil was transported and is being treated in a bio-cell located on CDF property. Critter has reneged on the contract, claiming that the hydrocarbon level of the biocell soil is higher than they expected, based on tests originally conducted by Hammontree. An out-of-court settlement was reached with Critter whereby they received no compensation from CDF for any bioremediation work that they performed and CDF is free to handle or dispose of the materials from the lagoons in the most cost effective, environmentally acceptable way. Of numerous alternatives being considered, transporting the contaminated soil to a landfill seem most likely.

While lagoon 1 is being remediated, lagoon 2 continues to be used for process water discharge. At our request, Hammontree has prepared a proposal for lagoon 1 to permit its restoration for use as a receptacle for treated process waters so that remediation of lagoon 2 can be undertaken.

Best regards,

WKC:mp
cc: FHZollinger
JPBressanelli
K.Houseknecht

PURCHASING / PRODUCTION

CANTON DROP FORGE

HIGH PERFORMANCE CLOSED DIE FORGINGS

4575 SOUTHWAY ST., S.W. • P.O. BOX 6902 • CANTON, OHIO 44706

PH. 216/477-4511

FAX 216/477-2046

8529

2

PURCHASE ORDER

No 098576

DATE	PAGE
6/26/97	1

VENDOR TO:
PARSONS ENGINEERING -PF
19101 VILLAVIEW RD
STE 301
CLEVELAND OH 44119

SHIP TO:
CANTON DROP FORGE
4575 SOUTHWAY STREET S.W.
P.O. BOX 6902
CANTON OH 44706
ATTN: STOCK ROOM

UNLESS OTHERWISE NOTED, SALES TAX DOES NOT APPLY ON ITEMS ORDERED

SHIP VIA: ~~BEST WAY~~

FREIGHT TERMS:

LINE NO.	ITEM NO.	DESCRIPTION/COMMENTS	U/M	PROMISED DATE	QUANTITY ORDERED	UNIT COST	TOTAL COST
1		PROVIDE SAMPLING ANALYSIS & FEASIBILITY STUDY SERVICES FOR LAGOON #2					
2							
3		AS PROPOSED ON 6/12/97 WITH VERBAL COMMENTS					
4		BETWEEN ED KARKALIK AND KEITH HOUSEKNECHT					
5							
6		$14,317.00					
7							
8		K.H. ESCROW KH1077					
9							
		ATTACH APPLICABLE MATERIAL SAFETY DATA SHEETS (MSDS) TO THE PACKING LIST FOR THE PRODUCT(S) ORDERED. NOTE: IF NOT ATTACHED, INDICATE REASON OR DATE LATEST MSDS REVISION WAS SENT TO CDF. MATERIAL CANNOT BE RECEIVED WITHOUT MSDS OR EXPLANATION.					
		Purchase Order Total					.00

CDF002138

ALL ORDERS:
1. Terms and Conditions on reverse side are part of this Purchase Order.
2. Acceptance – Unless otherwise stated herein, this order must be accepted by the Seller signing and returning the attached acknowledgment copy to Buyer within 10 days from the date of this order, and it is understood that the commencement of any work or the performance of any services hereunder

STEEL ORDERS:
1. Certified test reports in triplicate are to accompany steel shipments. Discount will be taken from date of receipt of goods or test reports, whichever is later.
2. Do not deviate from established producing practice in fulfilling the requirements of this order.

INVOICE DAY OF SHIPMENT TO:
CANTON DROP FORGE
PO BOX 6902
CANTON, OH 44706

procedures to a VAP-certified laboratory (e.g., GeoAnalytical, Inc. laboratory in Twinsburg, Ohio). As before, the samples will be analyzed for acid/base/neutrals (ABN) and Total Petroleum Hydrocarbons (TPH), reported as middle-range and heavy-range volatile organic compounds (VOCs), as required by VAP rules, and EPA Method 418.1. Results of analyses will be available within 7 to 9 **working** days after receipt by the laboratory.

PARSONS ENGINEERING SCIENCE, INC.

REMIT PAYMENT TO:
File 91849
Los Angeles, CA 90074-1849
Attn: Accounts Receivables

Street Address:
19101 VILLAVIEW ROAD, SUITE 301
CLEVELAND, OHIO 44119

Tel: (216) 486-9005
Fax: (216) 486-6119

I N V O I C E

2(b)

OCTOBER 21, 1997

CLIENT REF. :
INVOICE NO. : 00870843
PROJECT NO. : 731397-04
CLIENT NO. : 71275

TO: CANTON DROP FORGE, INC.
4575 SOUTHWAY STREET
CANTON, OHIO 44706

ATTN: MR. KEITH HOUSEKNECHT

PLEASE REMIT TO:
PARSONS ENGINEERING SCIENCE, INC
FILE 91849
LOS ANGELES, CALIFORNIA 90074-1849

FOR: CANTN DROP FORGE ASSESSMENT/#2 LAGOON
AUTHORIZATION: P.O. 98576
AMOUNT AUTHORIZED: $14,317.00
AMOUNT BILLED: $ 6,377.01

BILLING PERIOD: 8/30/97 THROUGH 9/26/97

	HOURS	CURRENT PERIOD THROUGH 9/26/97
WBS 04000 - ASSESSMENT/#2 LAGOON		
DIRECT LABOR	25.7	$768.72
OH & PROFIT @1.95 X D.L.		$1,499.00
ODCS WITHOUT HANDLING		$374.83
SUBTOTAL:		$2,642.55
TOTAL THIS INVOICE:		$2,642.55

FOR THE PERIOD ENDING 9/26/97

CLIENT REF.:
INVOICE NO.: 00870843
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRLBR15C

	EMPLOYEE NAME	ADJ. DATE	REGULAR HOURS	O/T HOURS	TOTAL HOURS	BILLING RATE	LABOR BILLING	PREMIUM BILLING
25	SENIOR SPECIALIST II							
	DELORIS A COLLINS		1.50		1.50	47.00	70.50	
	CLASSIFICATION TOTALS		1.50		1.50		70.50	
30	SENIOR SPECIALIST I							
	THOMAS A MC CREARY		1.00		1.00	69.84	69.86	
	JOCELYN G DE ANGELIS	08/29/97	.25		.25	64.11	16.02	
	LILY L BOUGHAN	08/29/97	.50		.50	47.70	23.87	
	SAMUEL J SAAD		8.00		8.00	53.39	427.13	
	CLASSIFICATION TOTALS		9.75		9.75		536.88	
85	PRINC ENG/SCIENTIST II							
	ALAN J RESNIK	09/05/97	1.50		1.50	80.22	120.33	
	CLASSIFICATION TOTALS		1.50		1.50		120.33	
90	PRINC ENG/SCIENTIST I							
	EDWARD J KARKALIK		13.00		13.00	118.46	1,540.01	
	CLASSIFICATION TOTALS		13.00		13.00		1,540.01	
	TOTAL LABOR BILLING		25.75		25.75		2,267.72	

FOR THE PERIOD ENDING 9/26/97

CLIENT REF.:
INVOICE NO.: 00870843
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRLBR11C

W/E DATE	EMPLOYEE NAME	EMPLOYEE CLASSIFICATION	ADJ. DATE	RATE	REGULAR HOURS	O/T HOURS	TOTAL HOURS
04000	ASSESSMENT/LAGOON #2						
9/05/97	EDWARD J KARKALIK	PRINC ENG/SCIENTIST I		118.46	6.00		6.00
9/05/97	DELORIS A COLLINS	SENIOR SPECIALIST II		47.00	.50		.50
9/05/97	JOCELYN G DE ANGELIS	SENIOR SPECIALIST I	08/29/97	64.11	.25		.25
9/05/97	LILY L BOUGHAN	SENIOR SPECIALIST I	08/29/97	47.70	.50		.50
9/12/97	EDWARD J KARKALIK	PRINC ENG/SCIENTIST I		118.46	5.00		5.00
9/12/97	THOMAS A MC CREARY	SENIOR SPECIALIST I		69.84	1.00		1.00
9/12/97	DELORIS A COLLINS	SENIOR SPECIALIST II		47.00	1.00		1.00
9/12/97	SAMUEL J SAAD	SENIOR SPECIALIST I		53.39	8.00		8.00
9/19/97	EDWARD J KARKALIK	PRINC ENG/SCIENTIST I		118.46	1.00		1.00
9/19/97	ALAN J RESNIK	PRINC ENG/SCIENTIST II	09/05/97	80.22	1.50		1.50
9/26/97	EDWARD J KARKALIK	PRINC ENG/SCIENTIST I		118.46	1.00		1.00
	ITEM TOTALS				25.75		25.75
	TOTAL LABOR HOURS				25.75		25.75

DETAIL OF OTHER DIRECT COSTS
FOR THE PERIOD ENDING 9/26/97
BY WBS/COST CODE

INVOICE NO.: 00870843
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRFODC03
REF:

REFERENCE NUMBER	DESCRIPTION OF EXPENSES	AMOUNT
04000: ASSESSMENT/LAGOON #2		
9210	TRAVEL	66.34
9540	FREIGHT/EXPRESS/POSTAGE	128.50
9550	REPRODUCTION CHARGES	69.40
9560	COMMUNICATIONS	4.39
9570	CAD/GIS/COMPUTERS	106.20
	ASSESSMENT/LAGOON #2	374.83
	GRAND TOTAL OTHER DIRECT COSTS	374.83

DETAIL OF OTHER DIRECT COSTS — PAGE: 1

FOR THE PERIOD ENDING 9/26/97

BY JOB/WBS/COST CODE

CLIENT REF.:
INVOICE NO.: 00870843
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRODCWTT

REF NO.	EQUIP/ VEND NO.	NAME	INVOICE DATE	DATE WORKED	DESCRIPTION	BATCH NO.	AMOUNT
731397	CANTON DROP FORGE LAGOON #1/BI						
04000	ASSESSMENT/LAGOON #2						
9212	AUTOMOBILE MILEAGE						
00017				9/19/97	AUTOMOBILE MILEAGE (PRIV)	104	66.34
					ACCOUNT TOTAL		66.34
9542	EXPRESS						
099705600	A4337	FEDERAL EXPRESS	9/09/97			389	13.00
099708526	A4337	FEDERAL EXPRESS	9/12/97			395	57.75
099708526	A4337	FEDERAL EXPRESS	9/12/97			395	57.75
					ACCOUNT TOTAL		128.50
9551	COPIER CHARGES						
30270				9/19/97	COPIER CHARGES	98	65.50
30270				9/26/97	COPIER CHARGES	100	.60
30270				9/26/97	COPIER CHARGES	100	2.00
30270				9/26/97	COPIER CHARGES	100	1.30
					ACCOUNT TOTAL		69.40
9561	TELEPHONE CHARGES						
00051				9/12/97	TELEPHONE CHARGES	101	1.39
					ACCOUNT TOTAL		1.39
9562	FAX CHARGES						
00015				9/12/97	FAX CHARGES	81	3.00
					ACCOUNT TOTAL		3.00
9573	MICRO-COMPUTER						
25001				9/12/97	MICRO-COMPUTER - CHARGES	94	3.80
25001				9/19/97	MICRO-COMPUTER - CHARGES	490	2.30
25001				9/19/97	MICRO-COMPUTER - CHARGES	490	.50

FOR THE PERIOD ENDING 9/26/97

BY JOB/WBS/COST CODE

CLIENT REF.:
INVOICE NO.: 00870843
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRODCWIT

REF NO.	EQUIP/ VEND NO.	NAME	INVOICE DATE	DATE WORKED	DESCRIPTION	BATCH NO.	AMOUNT
	25001			9/19/97	MICRO-COMPUTER - CHARGES	490	6.40
	25001			9/19/97	MICRO-COMPUTER - CHARGES	490	11.00
	25001			9/19/97	MICRO-COMPUTER - CHARGES	490	.60
	25001			9/19/97	MICRO-COMPUTER - CHARGES	490	55.20
	25001			9/19/97	MICRO-COMPUTER - CHARGES	490	2.10
	25001			9/19/97	MICRO-COMPUTER - CHARGES	490	13.20
					ACCOUNT TOTAL		95.10
	9574	CADD					
	10109			9/12/97	CAD - CHARGES	92	2.85
	10109			9/12/97	CAD - CHARGES	92	8.25
					ACCOUNT TOTAL		11.10
					ASSESSMENT/LAGOON #2		374.83
					JOB 731397 TOTAL		374.83
					TOTAL, OTHER DIRECT COSTS		374.83

PARSONS ENGINEERING SCIENCE, INC.

REMIT PAYMENT TO:
File 91849
Los Angeles, CA 90074-1849
Attn: Accounts Receivables

Street Address:
19101 VILLAVIEW ROAD, SUITE 301
CLEVELAND, OHIO 44119

Tel: (216) 486-9005
Fax: (216) 486-6119

INVOICE

2(b)

NOVEMBER 21, 1997

CLIENT REF. :
INVOICE NO. : 00930613
PROJECT NO. : 731397-04
CLIENT NO. : 71275

TO: CANTON DROP FORGE, INC.
4575 SOUTHWAY STREET
CANTON, OHIO 44706

ATTN: MR. KEITH HOUSEKNECHT

PLEASE REMIT TO:
PARSONS ENGINEERING SCIENCE, INC
FILE 91849
LOS ANGELES, CALIFORNIA 90074-1849

FOR: CANTN DROP FORGE ASSESSMENT/#2 LAGOON
AUTHORIZATION: P.O. 98576
AMOUNT AUTHORIZED: $14,317.00
AMOUNT BILLED: $14,317.00

BILLING PERIOD: 9/27/97 THROUGH 11/21/97

	HOURS	CURRENT PERIOD THROUGH 11/21/97
WBS 04000 - ASSESSMENT/#2 LAGOON		
DIRECT LABOR	5.0	$170.13
OH & PROFIT @1.95 X D.L.		$331.74
ODCS WITHOUT HANDLING		$42.23
ODCS W/HANDLING Rate		$6,780.35
Markup: 10%		$678.04
SUBTOTAL:		$8,002.49
OVERAGE CALCULATIONS		
LESS OVERAGE AMOUNT		$62.50-
TOTAL THIS INVOICE:		$7,939.99

FOR THE PERIOD ENDING 11/21/97

CLIENT REF.:
INVOICE NO.: 00930613
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRLBR15C

	EMPLOYEE NAME	ADJ. DATE	REGULAR HOURS	O/T HOURS	TOTAL HOURS	BILLING RATE	LABOR BILLING	PREMIUM BILLING
20	SPECIALIST I							
	DANA BOND		1.00		1.00	28.03	28.02	
	CLASSIFICATION TOTALS		1.00		1.00		28.02	
85	PRINC ENG/SCIENTIST II							
	ALAN J RESNIK		3.00		3.00	80.22	240.66	
	ALAN J RESNIK	10/17/97	.50		.50	80.22	40.12	
	ALAN J RESNIK	10/24/97	3.50-		3.50-	80.22	280.78-	
	CLASSIFICATION TOTALS						.00	
90	PRINC ENG/SCIENTIST I							
	EDWARD J KARKALIK		4.00		4.00	118.46	473.85	
	CLASSIFICATION TOTALS		4.00		4.00		473.85	
	TOTAL LABOR BILLING		5.00		5.00		501.87	

FOR THE PERIOD ENDING 11/21/97

CLIENT REF.:
INVOICE NO.: 00930613
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRLBR11C

W/E DATE	EMPLOYEE NAME	EMPLOYEE CLASSIFICATION	ADJ. DATE	RATE	REGULAR HOURS	O/T HOURS	TOTAL HOURS
04000	ASSESSMENT/LAGOON #2						
10/03/97	EDWARD J KARKALIK	PRINC ENG/SCIENTIST I		118.46	1.00		1.00
10/03/97	DANA BOND	SPECIALIST I		28.03	.50		.50
10/17/97	EDWARD J KARKALIK	PRINC ENG/SCIENTIST I		118.46	1.00		1.00
10/24/97	ALAN J RESNIK	PRINC ENG/SCIENTIST II		80.22	3.00		3.00
10/24/97	ALAN J RESNIK	PRINC ENG/SCIENTIST II	10/17/97	80.22	.50		.50
10/31/97	EDWARD J KARKALIK	PRINC ENG/SCIENTIST I		118.46	2.00		2.00
11/07/97	ALAN J RESNIK	PRINC ENG/SCIENTIST II	10/24/97	80.22	3.50-		3.50-
11/07/97	DANA BOND	SPECIALIST I		28.03	.50		.50
	ITEM TOTALS				5.00		5.00
	TOTAL LABOR HOURS				5.00		5.00

DETAIL OF OTHER DIRECT COSTS
FOR THE PERIOD ENDING 11/21/97
BY WBS/COST CODE

INVOICE NO.: 00930613
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRFODC03
REF:

REFERENCE NUMBER	DESCRIPTION OF EXPENSES	AMOUNT
04000: ASSESSMENT/LAGOON #2		
9530	SUPPLIES	20.35
9540	FREIGHT/EXPRESS/POSTAGE	1.10
9550	REPRODUCTION CHARGES	.80
9560	COMMUNICATIONS	9.13
9570	CAD/GIS/COMPUTERS	31.20
9605	CONSULTING SERVICES-QUANTERRA INCORPORAT	5,650.00
9605	CONSULTING SERVICES-APPLIED CONSTRUCTION	1,110.00
	ASSESSMENT/LAGOON #2	6,822.58
	GRAND TOTAL OTHER DIRECT COSTS	6,822.58

DETAIL OF OTHER DIRECT COSTS
FOR THE PERIOD ENDING 11/21/97
BY JOB/WBS/COST CODE

CLIENT REF.:
INVOICE NO.: 00930613
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRODCWTT

REF NO.	EQUIP/ VEND NO.	NAME	INVOICE DATE	DATE WORKED	DESCRIPTION	BATCH NO.	AMOUNT
731397 CANTON DROP FORGE LAGOON #1/BI							
04000 ASSESSMENT/LAGOON #2							
9535 MATERIAL AND SUPPLIES							
109700912	67743	SAMUEL J SAAD	9/19/97			396	20.35
					ACCOUNT TOTAL		20.35
9543 POSTAGE							
	00052			10/24/97	POSTAGE	108	.55
	00052			10/24/97	POSTAGE	108	.55
					ACCOUNT TOTAL		1.10
9551 COPIER CHARGES							
	30270			10/17/97	COPIER CHARGES	96	.80
					ACCOUNT TOTAL		.80
9561 TELEPHONE CHARGES							
	00051			10/10/97	TELEPHONE CHARGES	490	3.40
	00051			10/24/97	TELEPHONE CHARGES	104	.40
	00051			11/21/97	TELEPHONE CHARGES	486	.33
					ACCOUNT TOTAL		4.13
9562 FAX CHARGES							
	00015			10/24/97	FAX CHARGES	105	3.00
	00015			10/31/97	FAX CHARGES	113	2.00
					ACCOUNT TOTAL		5.00
9573 MICRO-COMPUTER							
	25001			11/14/97	MICRO-COMPUTER - CHARGES	88	6.20
	25001			11/14/97	MICRO-COMPUTER - CHARGES	88	23.20
					ACCOUNT TOTAL		29.40

CLIENT REF.:
INVOICE NO.: 00930613
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRODCWTT

REF NO.	EQUIP/ VEND NO.	NAME	INVOICE DATE	DATE WORKED	DESCRIPTION	BATCH NO.	AMOUNT
9574 CADD							
	10109			10/24/97	CAD - CHARGES	98	1.80
					ACCOUNT TOTAL		1.80
9605 CONSULTING SERVICES							
109700961	J7509	APPLIED CONSTRUCTION TECHNOLOG	9/15/97			397	1,110.00
109708847	J6306	QUANTERRA INCORPORATED	8/12/97			392	5,650.00
					ACCOUNT TOTAL		6,760.00
					ASSESSMENT/LAGOON #2		6,822.58
					JOB 731397 TOTAL		6,822.58
					TOTAL, OTHER DIRECT COSTS		6,822.58

PARSONS ENGINEERING SCIENCE, INC.

REMIT PAYMENT TO:
File 91849
Los Angeles, CA 90074-1849
Attn: Accounts Receivables

Street Address:
19101 VILLAVIEW ROAD, SUITE 301
CLEVELAND, OHIO 44119

Tel: (216) 486-9005
Fax: (216) 486-6119

INVOICE

2(b)

SEPTEMBER 17, 1997

CLIENT REF. :
INVOICE NO. : 00838510
PROJECT NO. : 731397-04
CLIENT NO. : 71275

TO: CANTON DROP FORGE, INC.
4575 SOUTHWAY STREET
CANTON, OHIO 44706

ATTN: MR. KEITH HOUSEKNECHT

PLEASE REMIT TO:
PARSONS ENGINEERING SCIENCE, INC
FILE 91849
LOS ANGELES, CALIFORNIA 90074-1849

FOR: CANTN DROP FORGE ASSESSMENT/#2 LAGOON
AUTHORIZATION: P.O. 98575 (98576)
AMOUNT AUTHORIZED: $14,317.00
AMOUNT BILLED: $ 3,734.46

BILLING PERIOD: 7/26/97 THROUGH 8/29/97

	HOURS	CURRENT PERIOD THROUGH 8/29/97
WBS 04000 - ASSESSMENT/#2 LAGOON		
DIRECT LABOR	12.5	$393.92
OH & PROFIT @1.95 X D.L.		$768.15
ODCS WITHOUT HANDLING		$93.35
ODCS W/HANDLING Rate		$9.66
Markup: 10%		$.97
SUBTOTAL:		$1,266.05
TOTAL THIS INVOICE:		$1,266.05

FOR THE PERIOD ENDING 8/29/97

CLIENT REF.:
INVOICE NO.: 00838510
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRLBR15C

	EMPLOYEE NAME	ADJ. DATE	REGULAR HOURS	O/T HOURS	TOTAL HOURS	BILLING RATE	LABOR BILLING	PREMIUM BILLING
80	SPVG ENG/SCIENTIST I							
	RICHARD W VOLPI		7.00		7.00	72.93	510.53	
	CLASSIFICATION TOTALS		7.00		7.00		510.53	
90	PRINC ENG/SCIENTIST I							
	EDWARD J KARKALIK		5.50		5.50	118.46	651.54	
	CLASSIFICATION TOTALS		5.50		5.50		651.54	
	TOTAL LABOR BILLING		12.50		12.50		1,162.07	

FOR THE PERIOD ENDING 8/29/97

CLIENT REF.:
INVOICE NO.: 00838510
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRLBR11C

W/E DATE	EMPLOYEE NAME	EMPLOYEE CLASSIFICATION	ADJ. DATE	RATE	REGULAR HOURS	O/T HOURS	TOTAL HOURS
04000	ASSESSMENT/LAGOON #2						
8/15/97	EDWARD J KARKALIK	PRINC ENG/SCIENTIST I		118.46	1.00		1.00
8/22/97	EDWARD J KARKALIK	PRINC ENG/SCIENTIST I		118.46	.50		.50
8/29/97	EDWARD J KARKALIK	PRINC ENG/SCIENTIST I		118.46	4.00		4.00
8/29/97	RICHARD W VOLPI	SPVG ENG/SCIENTIST I		72.93	7.00		7.00
	ITEM TOTALS				12.50		12.50
	TOTAL LABOR HOURS				12.50		12.50

DETAIL OF OTHER DIRECT COSTS
FOR THE PERIOD ENDING 8/29/97
BY WBS/COST CODE

INVOICE NO.: 00838510
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRFODC03
REF:

REFERENCE NUMBER	DESCRIPTION OF EXPENSES	AMOUNT
04000: ASSESSMENT/LAGOON #2		
9210	TRAVEL	35.65
9220	SUBSISTENCE	50.00
9530	SUPPLIES	9.66
9540	FREIGHT/EXPRESS/POSTAGE	.78
9550	REPRODUCTION CHARGES	3.90
9560	COMMUNICATIONS	2.22
9570	CAD/GIS/COMPUTERS	.80
	ASSESSMENT/LAGOON #2	103.01
	GRAND TOTAL OTHER DIRECT COSTS	103.01

DETAIL OF OTHER DIRECT COSTS PAGE: 1

FOR THE PERIOD ENDING 8/29/97

BY JOB/WBS/COST CODE

CLIENT REF.:
INVOICE NO.: 00838510
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRODCWTT

REF NO.	EQUIP/ VEND NO.	NAME	INVOICE DATE	DATE WORKED	DESCRIPTION	BATCH NO.	AMOUNT
731397	CANTON DROP FORGE LAGOON #1/BI						
04000	ASSESSMENT/LAGOON #2						
9212	AUTOMOBILE MILEAGE						
089708738	49358	ALAN J RESNIK	8/15/97			395	12.40
089711741	40470	EDWARD J KARKALIK	8/22/97			401	23.25
					ACCOUNT TOTAL		35.65
9222	MEALS						
089711741	40470	EDWARD J KARKALIK	8/22/97			401	50.00
					ACCOUNT TOTAL		50.00
9535	MATERIAL AND SUPPLIES						
089706325	J6006	RITZ CAMERA	7/14/97			391	8.66
089711741	40470	EDWARD J KARKALIK	8/22/97			401	1.00
					ACCOUNT TOTAL		9.66
9543	POSTAGE						
	00052			8/15/97	POSTAGE	102	.78
					ACCOUNT TOTAL		.78
9551	COPIER CHARGES						
	30270			8/15/97	COPIER CHARGES	96	2.50
	30270			8/15/97	COPIER CHARGES	96	1.40
					ACCOUNT TOTAL		3.90
9561	TELEPHONE CHARGES						
	00051			8/08/97	TELEPHONE CHARGES	101	.26
	00051			8/08/97	TELEPHONE CHARGES	101	1.96
					ACCOUNT TOTAL		2.22
9573	MICRO-COMPUTER						

PARSONS ENGINEERING SCIENCE, INC.

REMIT PAYMENT TO:
File 91849
Los Angeles, CA 90074-1849
Attn: Accounts Receivables

Street Address:
19101 VILLAVIEW ROAD, SUITE 301
CLEVELAND, OHIO 44119

Tel: (216) 486-9005
Fax: (216) 486-6119

I N V O I C E

2(b)

AUGUST 6, 1997

CLIENT REF. :
INVOICE NO. : 00811452
PROJECT NO. : 731397-04
CLIENT NO. : 71275

TO: CANTON DROP FORGE, INC.
4575 SOUTHWAY STREET
CANTON, OHIO 44706

ATTN: MR. KEITH HOUSEKNECHT

PLEASE REMIT TO:
PARSONS ENGINEERING SCIENCE, INC
FILE 91849
LOS ANGELES, CALIFORNIA 90074-1849

FOR: CANTN DROP FORGE ASSESSMENT/#2 LAGOON
AUTHORIZATION: P.O. ~~98575~~/98576
AMOUNT AUTHORIZED: $14,317.00
AMOUNT BILLED: $ 2,468.41

BILLING PERIOD: PROJECT INITIATION THROUGH 7/25/97

	HOURS	CURRENT PERIOD THROUGH 7/25/97
WBS 04000 - ASSESSMENT/#2 LAGOON		
DIRECT LABOR	33.5	$753.50
OH & PROFIT @1.95 X D.L.		$1,451.71
ODCS WITHOUT HANDLING		$243.58
ODCS W/HANDLING Rate		$17.84
Markup: 10%		$1.78
SUBTOTAL:		$2,468.41
TOTAL THIS INVOICE:		$2,468.41

FOR THE PERIOD ENDING 7/25/97

CLIENT REF.:
INVOICE NO.: 00811452
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRLBR15C

	EMPLOYEE NAME	ADJ. DATE	REGULAR HOURS	O/T HOURS	TOTAL HOURS	BILLING RATE	LABOR BILLING	PREMIUM BILLING
25	SENIOR SPECIALIST II							
	DEBRA G GIBSON		.50		.50	38.05	19.03	
	DEBRA G GIBSON	07/11/97	.50		.50	38.05	19.03	
	CLASSIFICATION TOTALS		1.00		1.00		38.06	
30	SENIOR SPECIALIST I							
	SAMUEL J SAAD		12.00	1.00	13.00	53.39	694.08	9.04
	CLASSIFICATION TOTALS		12.00	1.00	13.00		694.08	9.04
70	SR ENGINEER/SCIENTIST I							
	DANIEL A KRIEG		5.50		5.50	57.86	318.22	
	CLASSIFICATION TOTALS		5.50		5.50		318.22	
80	SPVG ENG/SCIENTIST I							
	RICHARD W VOLPI		10.00		10.00	72.93	729.33	
	CLASSIFICATION TOTALS		10.00		10.00		729.33	
85	PRINC ENG/SCIENTIST II							
	ALAN J RESNIK	07/18/97	1.50		1.50	80.22	120.33	
	CLASSIFICATION TOTALS		1.50		1.50		120.33	
90	PRINC ENG/SCIENTIST I							
	EDWARD J KARKALIK		2.50		2.50	118.46	296.15	
	CLASSIFICATION TOTALS		2.50		2.50		296.15	
	TOTAL LABOR BILLING		32.50	1.00	33.50		2,196.17	9.04

DETAIL OF PROFESSIONAL SERVICES
FOR THE PERIOD ENDING 7/25/97

CLIENT REF.:
INVOICE NO.: 00811452
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRLBR11C

W/E DATE	EMPLOYEE NAME	EMPLOYEE CLASSIFICATION	ADJ. DATE	RATE	REGULAR HOURS	O/T HOURS	TOTAL HOURS
04000	ASSESSMENT/LAGOON #2						
7/04/97	DANIEL A KRIEG	SR ENGINEER/SCIENTIST I		57.86	5.50		5.50
7/11/97	EDWARD J KARKALIK	PRINC ENG/SCIENTIST I		118.46	2.50		2.50
7/11/97	RICHARD W VOLPI	SPVG ENG/SCIENTIST I		72.93	10.00		10.00
7/11/97	DEBRA G GIBSON	SENIOR SPECIALIST II		38.05	.50		.50
7/11/97	SAMUEL J SAAD	SENIOR SPECIALIST I		53.39	12.00	1.00	13.00
7/18/97	DEBRA G GIBSON	SENIOR SPECIALIST II	07/11/97	38.05	.50		.50
7/25/97	ALAN J RESNIK	PRINC ENG/SCIENTIST II	07/18/97	80.22	1.50		1.50
	ITEM TOTALS				32.50	1.00	33.50
	TOTAL LABOR HOURS				32.50	1.00	33.50

DETAIL OF PROFESSIONAL SERVICES

FOR THE PERIOD ENDING 7/25/97

CLIENT REF.:
INVOICE NO.: 00811452
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRLBR11C

W/E DATE	EMPLOYEE NAME	EMPLOYEE CLASSIFICATION	ADJ. DATE	RATE	REGULAR HOURS	O/T HOURS	TOTAL HOURS
04000	ASSESSMENT/LAGOON #2						
7/04/97	DANIEL A KRIEG	SR ENGINEER/SCIENTIST I		57.86	5.50		5.50
7/11/97	EDWARD J KARKALIK	PRINC ENG/SCIENTIST I		118.46	2.50		2.50
7/11/97	RICHARD W VOLPI	SPVG ENG/SCIENTIST I		72.93	10.00		10.00
7/11/97	DEBRA G GIBSON	SENIOR SPECIALIST II		38.05	.50		.50
7/11/97	SAMUEL J SAAD	SENIOR SPECIALIST I		53.39	12.00	1.00	13.00
7/18/97	DEBRA G GIBSON	SENIOR SPECIALIST II	07/11/97	38.05	.50		.50
7/25/97	ALAN J RESNIK	PRINC ENG/SCIENTIST II	07/18/97	80.22	1.50		1.50
	ITEM TOTALS				32.50	1.00	33.50
	TOTAL LABOR HOURS				32.50	1.00	33.50

DETAIL OF OTHER DIRECT COSTS
FOR THE PERIOD ENDING 7/25/97
BY JOB/WBS/COST CODE

CLIENT REF.:
INVOICE NO.: 00811452
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRODCWTT

REF NO.	EQUIP/ VEND NO.	NAME	INVOICE DATE	DATE WORKED	DESCRIPTION	BATCH NO.	AMOUNT
				TOTAL, OTHER DIRECT COSTS			261.42

PARSONS ENGINEERING SCIENCE, INC.

REMIT PAYMENT TO:
File 91849
Los Angeles, CA 90074-1849
Attn: Accounts Receivables

Street Address:
19101 VILLAVIEW ROAD, SUITE 301
CLEVELAND, OHIO 44119

Tel: (216) 486-9005
Fax: (216) 486-6119

I N V O I C E

2(b)

AUGUST 6, 1997

CLIENT REF. :
INVOICE NO. : 00811452
PROJECT NO. : 731397-04
CLIENT NO. : 71275

TO: CANTON DROP FORGE, INC.
4575 SOUTHWAY STREET
CANTON, OHIO 44706

ATTN: MR. KEITH HOUSEKNECHT

PLEASE REMIT TO:
PARSONS ENGINEERING SCIENCE, INC
FILE 91849
LOS ANGELES, CALIFORNIA 90074-1849

FOR: CANTN DROP FORGE ASSESSMENT/#2 LAGOON
AUTHORIZATION: P.O. 98575/98576
AMOUNT AUTHORIZED: $14,317.00
AMOUNT BILLED: $ 2,468.41

BILLING PERIOD: PROJECT INITIATION THROUGH 7/25/97

	HOURS	CURRENT PERIOD THROUGH 7/25/97
WBS 04000 - ASSESSMENT/#2 LAGOON		
DIRECT LABOR	33.5	$753.50
OH & PROFIT @1.95 X D.L.		$1,451.71
ODCS WITHOUT HANDLING		$243.58
ODCS W/HANDLING Rate		$17.84
Markup: 10%		$1.78
SUBTOTAL:		$2,468.41
TOTAL THIS INVOICE:		$2,468.41

CLIENT REF.:
INVOICE NO.: 00811452
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRLBR15C

	EMPLOYEE NAME	ADJ. DATE	REGULAR HOURS	O/T HOURS	TOTAL HOURS	BILLING RATE	LABOR BILLING	PREMIUM BILLING
25	SENIOR SPECIALIST II							
	DEBRA G GIBSON		.50		.50	38.05	19.03	
	DEBRA G GIBSON	07/11/97	.50		.50	38.05	19.03	
	CLASSIFICATION TOTALS		1.00		1.00		38.06	
30	SENIOR SPECIALIST I							
	SAMUEL J SAAD		12.00	1.00	13.00	53.39	694.08	9.04
	CLASSIFICATION TOTALS		12.00	1.00	13.00		694.08	9.04
70	SR ENGINEER/SCIENTIST I							
	DANIEL A KRIEG		5.50		5.50	57.86	318.22	
	CLASSIFICATION TOTALS		5.50		5.50		318.22	
80	SPVG ENG/SCIENTIST I							
	RICHARD W VOLPI		10.00		10.00	72.93	729.33	
	CLASSIFICATION TOTALS		10.00		10.00		729.33	
85	PRINC ENG/SCIENTIST II							
	ALAN J RESNIK	07/18/97	1.50		1.50	80.22	120.33	
	CLASSIFICATION TOTALS		1.50		1.50		120.33	
90	PRINC ENG/SCIENTIST I							
	EDWARD J KARKALIK		2.50		2.50	118.46	296.15	
	CLASSIFICATION TOTALS		2.50		2.50		296.15	
	TOTAL LABOR BILLING		32.50	1.00	33.50		2,196.17	9.04

CLIENT REF.:
INVOICE NO.: 00811452
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRLBR11C

W/E DATE	EMPLOYEE NAME	EMPLOYEE CLASSIFICATION	ADJ. DATE	RATE	REGULAR HOURS	O/T HOURS	TOTAL HOURS
04000	ASSESSMENT/LAGOON #2						
7/04/97	DANIEL A KRIEG	SR ENGINEER/SCIENTIST I		57.86	5.50		5.50
7/11/97	EDWARD J KARKALIK	PRINC ENG/SCIENTIST I		118.46	2.50		2.50
7/11/97	RICHARD W VOLPI	SPVG ENG/SCIENTIST I		72.93	10.00		10.00
7/11/97	DEBRA G GIBSON	SENIOR SPECIALIST II		38.05	.50		.50
7/11/97	SAMUEL J SAAD	SENIOR SPECIALIST I		53.39	12.00	1.00	13.00
7/18/97	DEBRA G GIBSON	SENIOR SPECIALIST II	07/11/97	38.05	.50		.50
7/25/97	ALAN J RESNIK	PRINC ENG/SCIENTIST II	07/18/97	80.22	1.50		1.50
	ITEM TOTALS				32.50	1.00	33.50
	TOTAL LABOR HOURS				32.50	1.00	33.50

DETAIL OF OTHER DIRECT COSTS
FOR THE PERIOD ENDING 7/25/97
BY WBS/COST CODE

INVOICE NO.: 00811452
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRFODC03
REF:

REFERENCE NUMBER	DESCRIPTION OF EXPENSES	AMOUNT
04000: ASSESSMENT/LAGOON #2		
9210	TRAVEL	76.88
9530	SUPPLIES	17.84
9550	REPRODUCTION CHARGES	1.20
9560	COMMUNICATIONS	2.00
9580	EQUIPMENT/REPAIR/MAINT	163.50
	ASSESSMENT/LAGOON #2	261.42
	GRAND TOTAL OTHER DIRECT COSTS	261.42

DETAIL OF OTHER DIRECT COSTS
FOR THE PERIOD ENDING 7/25/97
BY JOB/WBS/COST CODE

CLIENT REF.:
INVOICE NO.: 00811452
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRODCWTT

REF NO.	EQUIP/ VEND NO.	NAME	INVOICE DATE	DATE WORKED	DESCRIPTION	BATCH NO.	AMOUNT
731397	CANTON DROP FORGE LAGOON #1/BI						
04000	ASSESSMENT/LAGOON #2						
9212	AUTOMOBILE MILEAGE						
00017				7/24/97	AUTOMOBILE MILEAGE (PRIV)	90	76.88
					ACCOUNT TOTAL		76.88
9535	MATERIAL AND SUPPLIES						
079706333	48266	RICHARD W VOLPI	7/11/97			399	17.84
					ACCOUNT TOTAL		17.84
9551	COPIER CHARGES						
30270				7/11/97	COPIER CHARGES	93	.40
30270				7/18/97	COPIER CHARGES	96	.80
					ACCOUNT TOTAL		1.20
9562	FAX CHARGES						
00015				7/18/97	FAX CHARGES	86	2.00
					ACCOUNT TOTAL		2.00
9588	MECH EQUIP REP & MAINT						
00122				7/18/97	MECH EQUIP REP & MAINT	86	5.00
00122				7/18/97	MECH EQUIP REP & MAINT	86	18.00
00212				7/18/97	MECH EQUIP REP & MAINT	86	2.50
00212				7/18/97	MECH EQUIP REP & MAINT	86	62.00
00212				7/18/97	MECH EQUIP REP & MAINT	86	25.00
00212				7/18/97	MECH EQUIP REP & MAINT	86	27.00
00212				7/18/97	MECH EQUIP REP & MAINT	86	15.00
00212				7/18/97	MECH EQUIP REP & MAINT	86	9.00
					ACCOUNT TOTAL		163.50
					ASSESSMENT/LAGOON #2		261.42
					JOB 731397 TOTAL		261.42

DETAIL OF OTHER DIRECT COSTS

FOR THE PERIOD ENDING 7/25/97

BY JOB/WBS/COST CODE

CLIENT REF.:
INVOICE NO.: 00811452
PROJECT NO.: 731397-04
CLIENT NO..: 71275
FORMAT NAME: SBLRODCWTT

REF NO.	EQUIP/ VEND NO.	NAME	INVOICE DATE	DATE WORKED	DESCRIPTION	BATCH NO.	AMOUNT
					TOTAL, OTHER DIRECT COSTS		261.42

PARSONS ENGINEERING SCIENCE, INC.
A UNIT OF PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP INC

19101 Villaview Road, Suite 301 • Cleveland, Ohio 44119 • (216) 486-9005 • Fax (216) 486-6119
PARESCL/697/Dee/EJK7-13

9 8576

12 June 1997

2(b)

Mr. Keith Houseknecht
CANTON DROP FORGE, INC.
4575 Southway Street, SW
Canton, Ohio 44706

Reference: Proposal to Provide Sampling, Analysis and Feasibility Study Services for Lagoon #2 at Canton Drop Forge, Inc.

Dear Mr. Houseknecht:

In accordance with your request, arising from our meeting with Messrs. William Cordier and Jerry Bressanelli on Monday, 9 June 1997, Parsons Engineering Science, Inc. (Parsons ES) is pleased to have this opportunity to offer to Canton Drop Forge, Inc. (CDF) this proposal. The primary objectives of this proposal are:

1) to determine, by means of environmental sampling and analyses, the nature and extent of sludge material in Lagoon #2; and
2) to demonstrate, by means of geotechnical analyses and treatability tests, the feasibility of in-place stabilization of the material.

Parsons ES understands that CDF is interested in fulfilling these objectives in accordance with Ohio EPA's Voluntary Action Program (VAP) rules, as contained in OAC 3745-300-01 through 3745-300-15. Based on discussions with CDF and Ohio EPA (on a non-disclosure basis), Parsons ES has assumed that VAP rules are applicable to the CDF property and, specifically, to this project.

PROPOSED SCOPE OF WORK

The following tasks comprise Parsons ES' Proposed Scope of Work for the Project:

Task 1 - Sampling and Analysis

Following review and amendment, as necessary, of the Sampling and Analysis Plan (SAP) and Health & Safety Plan (HASP) previously developed for testing the biocell material, Parsons ES will collect ten (10) samples from randomly identified areas of Lagoon #2. A small boat will be used as the platform for conducting the sampling. Disposable plastic sleeves, i.e., pipe sections, and/or a bottom sampling dredge will be used to collect samples from several different depths in the sludge layer at the bottom of Lagoon #2. Each sample will be placed in appropriate sample containers and will be preserved, marked, and transported under normal chain-of-custody procedures to a VAP-certified laboratory (e.g., GeoAnalytical, Inc. laboratory in Twinsburg, Ohio). As before, the samples will be analyzed for acid/base/neutrals (ABN) and Total Petroleum Hydrocarbons (TPH), reported as middle-range and heavy-range volatile organic compounds (VOCs), as required by VAP rules, and EPA Method 418.1. Results of analyses will be available within 7 to 9 **working** days after receipt by the laboratory.

One or more buckets (e.g., 5-gallon pails with sealed lids) of sludge material will be collected and transported to a geotechnical laboratory for treatability testing. Testing will consist of mixing known quantities of admixtures (e.g., Portland cement, Pozilime, fly ash, or similar materials) and conducting California Bearing Ratio (CBR), i.e., unconfined compressive strength, tests.

Task 2 - Review of Analytical Results and Feasibility of In-Place Stabilization

Following receipt of the results of analyses from the environmental and geotechnical laboratories, Parsons ES will review these results in light of CDF's objective of stabilizing the sludge material in-place in Lagoon #2 (after de-watering) and in accordance with Ohio EPA's VAP requirements. The results of this feasibility analysis will be a conceptual model for conducting the in-place stabilization, sludge material to admixture ratios and considerations for the placement and compacting of clay layers to serve as impermeable liners under and over the stabilized material. Approximate costs for completing these activities (i.e., stabilization, clay placement, etc.) will also be estimated as part of this task.

Task 3 - Report Results

Parsons ES will develop a simple letter report containing the sampling protocol followed, analyses completed, results of analyses generated, implication of these results, conceptual design developed, and the budget-level costs (i.e., within a range of +/- 30%) of implementation estimated. The draft report will be forwarded to CDF for review.

Task 4 - Attend Review Meeting

Parsons ES will participate in a review meeting with CDF management to review available options for addressing Lagoon #2 sludge materials. It is anticipated that the meeting could be conducted during the week ending 18 July 1997, if the assumptions listed below are appropriate.

PROPOSED BUDGET AND SCHEDULE

Parsons ES proposes to complete the Tasks defined above on a "time and expenses, total cost not to exceed" basis, for a cost of not more than $14,317. Table 1 provides a detailed break-down of this estimate.

Assuming that CDF's Authorization to Proceed is issued within one week, Parsons ES anticipates that the Scope of Work proposed above can be completed by 21 July 1997.

PROPOSED PROJECT PERSONNEL

The principal technical contributors for the work described in this proposal will be:

- Rick Volpi — sampling and analysis plan; on-site sampling coordination;
- Alan Resnik — VAP procedural review;
- Gordon Melle — stabilization feasibility review; and
- Ed Karkalik — project management.

TERMS AND CONDITIONS

The terms and conditions of Parsons ES' Engineering Services Agreement (ESA), originally submitted with our proposal dated 11 April 1997 with Supplemental Terms and Conditions attached, will apply to this work. Please issue a purchase order (PO) for this work, referencing this proposal and our ESA. Our receipt of your PO will be interpreted as our Authorization to Proceed.

Parsons ES is pleased to have this opportunity to continue providing environmental engineering services to Canton Drop Forge. If you require any additional information or clarification of this proposal, please contact either Rick Volpi or Ed Karkalik by telephone at (216) 486-9005.

Very truly yours,
PARSONS ENGINEERING SCIENCE, INC.

Wilson H. Rownd, PE
Vice President/Manager

Edward J. Karkalik, PE
Project Manager

WHR/EJK/dee
cc: File 97290097003
Mr. Gordon Melle
Mr. Richard Volpi

PARSONS ENGINEERING SCIENCE, INC.
A UNIT OF PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP INC

19101 Villaview Road, Suite 301 • Cleveland, Ohio 44119 • (216) 486-9005 • Fax (216) 486-6119
PARESCL/697/Dee/EJK7-13

98576

12 June 1997

2(b)

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4575 Southway Street, SW
Canton, Ohio 44706

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Very truly yours,
PARSONS ENGINEERING SCIENCE, INC.

Wilson H. Rownd, PE
Vice President/Manager

Edward J. Karkalik, PE
Project Manager

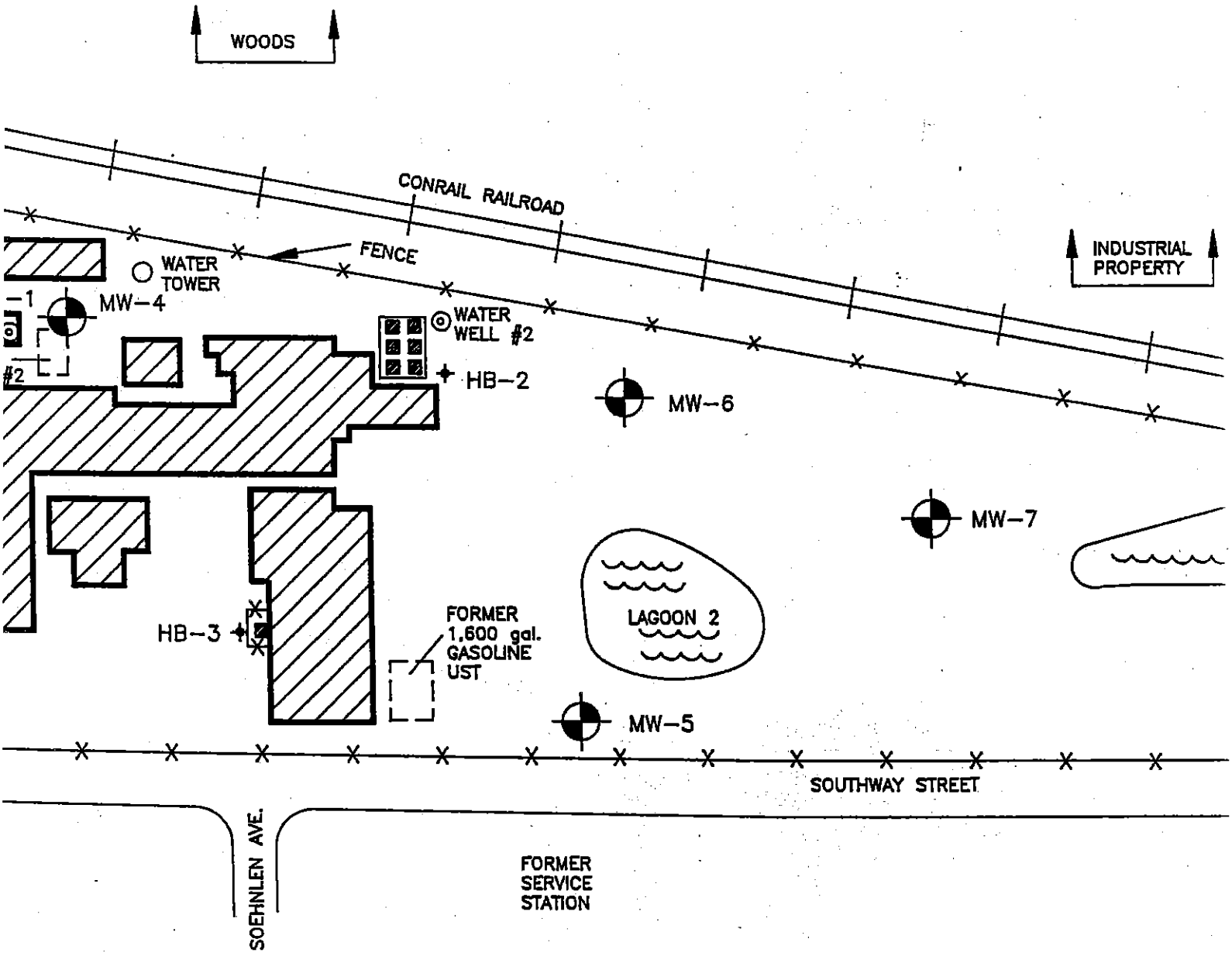
WHR/EJK/dee
cc: File 97290097003
Mr. Gordon Melle
Mr. Richard Volpi

TABLE 1

CANTON DROP FORGE, INC.
LAGOON #2 SAMPLING, ANALYSIS AND FEASIBILITY REVIEW

PROPOSED PROJECT BUDGET

Task No. - Description	Labor Hours	Labor Costs	ODC Costs	Total Costs
1 - Sampling and Analysis	32	$2,438	$8,850	$11,288
2 - Feasibility Review	10	$1,003	--	$1,003
3 - Letter Report	13	$1,166	$145	$1,311
4 - Review Meeting	6	$665	$50	$715
TOTAL	**61**	**$5,272**	**$9,045**	**$14,317**


WOODS
CONRAIL RAILROAD
FENCE
INDUSTRIAL PROPERTY
WATER TOWER
MW-4
WATER WELL #2
HB-2
MW-6
MW-7
LAGOON 2
HB-3
FORMER 1,600 gal. GASOLINE UST
MW-5
SOUTHWAY STREET
SOEHNLEN AVE.
FORMER SERVICE STATION

K&K INTERNATIONAL, INC.

2(b)

BORING NO. B-5

ELEV. _____

DRILLING LOG

Client Hammontree & Associates, Limited

Project Hydrogeological Site Assessment — Project No. 002420

Location Canton Drop Forge & Manufacturing Co.

Date: Started 12-1-92 — Completed 12-1-92 — Driller Northcoast

Sampler: Dia 2 ins — Type s/s — Hammer Wt 140 lbs — Fall 30 ins

Casing: Dia 4.25 ins — Type HSA — Hammer Wt _____ — Fall _____

Water/Mud used in drilling: Yes _____ No * — Geologist/Engineer K Valek

Depth (ft)	Graphic Log	Material Description	Sample No	Sample Depth	Blows/0.5'	REC (ft.)	PID (ppm)
0.3		TOPSOIL	1	1.0	5-6-9-12	1.3	3.7
2.5		Medium dense, tan, SILT, trace gravel, sand, black organic material, moist	2	3.0	19-21-24-11	1.5	4.6
3.5		Medium dense, light gray, SAND AND GRAVEL, damp					
4.0		Dense, brown, SILT, trace sand, moist	3	5.0	9-17-7-6	0.0	-
		Medium dense-loose, mottled brown and black, SAND, little gravel and silt, black staining, moist, strong hydrocarbon odor	4	7.0	3-4-5-5	0.2	5.0
		Note: Black stain, strong hydrocarbon odor at 8.8 feet	5	9.0	2-2-2-3	0.8	2.6
10.0		Medium stiff, brown, SILT, little clay, gravel, and sand, moist	6	11.0	3-6-4-3	0.4	2.6
		Note: Black organic material with organic odor at 10.9 feet	7	13.0	2-4-5-6	1.5	3.3
		Note: Cobble at 12.8 feet					
13.8		Note: Black staining at 13.0 feet	8	15.0	3-5-5-7	1.5	1.7
		Medium stiff-stiff, gray, SILTY CLAY, trace organics, trace rootlets, moist, mottled with brown in part	9	17.0	2-4-3-6	0.3	2.6
		Note: Trace gravel and cobble at 15.5	10	19.0	5-8-6-8	0.0	-
			11	21.0	2-4-3-4	1.0	2.9
22.0		Loose, mottled gray and brown, SAND AND GRAVEL, little cobble and silt, moist	12	23.0	3-3-4-4	1.3	2.1
24.0		Note: Very moist					

CDF002175

WATER DEPTH: During Drilling 27.5 ft. — Upon Compl. Dry — _____ Hrs. after Compl. N.R.

Weather: _____ Remarks:

K&K INTERNATIONAL INC.

DRILLING LOG

BORING NO. B-5 (cont.)

ELEV. _____

Project Hydrogeological Site Assessment

Project No. 002420

Depth (ft)	Graphic Log	Material Description	Sample No	Sample Depth	Blows/0.5'	REC (ft.)	PID (ppm)
24.0		Dense–very dense, light gray, SANDY SILT, little gravel, moist	13	25.0	5–6–11–14	1.5	2.4
		Note: Very orange sand, appears wet on outside in spoon,m interior sand is moist; submitted for metals	14	27.0	13–16–17–21	1.5	4.3
		Note: Very moist					
		Note: Soil saturated	15	29.0	13–15–17–18	1.8	4.5
			16	31.0	17–18–21–29	1.5	2.9
33.5		TERMINATION DEPTH = 33.5 FEET					

CDF002176

WATER DEPTH: During Drilling 27.5 ft. Upon Compl. Dry _____ Hrs. after Compl. N.R.

Weather: Remarks:

BORING NO. B-6
ELEV. _____

DRILLING LOG

Client Hammontree & Associates, Limited
Project Hydrogeological Site Assessment — Project No. 002420
Location Canton Drop Forge & Manufacturing Co.
Date: Started 12-2-92 — Completed 12-2-92 — Driller Northcoast
Sampler: Dia 2 ins — Type s/s — Hammer Wt 140 lbs — Fall 30 ins
Casing: Dia 4.25 ins — Type HSA — Hammer Wt _____ — Fall _____
Water/Mud used in drilling: Yes _____ No * — Geologist/Engineer K Valek

Depth (ft)	Graphic Log	Material Description	Sample No	Sample Depth	Blows/0.5'	REC (ft.)	PID (ppm)
0.3		Black, SAND AND GRAVEL	1	1.0	3-5-7-9	1.0	9.2
		Medium dense, brown, SAND, GRAVEL AND SILT, trace wood, trace cobble, moist, faint organic odor	2	3.0	8-9-12-12	1.0	12.6
3.5		Note: Orange sand 1 inch thick at 4.0 feet	3	5.0	8-9-9-34	1.0	9.9
7.0			4	7.0	4-4-4-6	2.0	7.7
		Loose-medium dense, light brown, SILT, trace sand, gravel, black organic material, moist	5	9.0	5-6-7-8	2.0	8.1
			6	11.0	4-7-7-5	2.5	10.5
		Note: Some gravel, little sand	7	13.0	3-4-5-6	1.0	4.4
14.0			8	15.0	4-5-4-8	0.2	3.2
		Medium dense, brown, red-brown in part, SAND AND GRAVEL, little silt and cobble, moist	9	17.0	9-13-13-17	0.0	-
			10	19.0	10-12-14-16	0.5	5.8
			11	21.0	10-11-13-13	1.5	8.0
			12	23.0	9-11-12-13	1.2	9.7

CDF002177

WATER DEPTH: During Drilling 46.0 ft. — Upon Compl. Dry — _____ Hrs. after Compl. N.R.
Weather: _____ Remarks: _____

K&R INTERNATIONAL INC

BORING NO. B-6 (cont.)
ELEV. _____

DRILLING LOG

Project Hydrogeological Site Assessment — Project No. 002420

Depth (ft)	Graphic Log	Material Description	Sample No	Sample Depth	Blows/0.5'	REC (ft.)	PID (ppm)
			13	25.0	10-12-11-14	1.0	8.2
			14	27.0	15-10-12-12	1.0	2.8
			15	29.0	8-8-9-9	0.8	8.8
31.0			16	31.0	7-12-10-12	1.6	6.5
		Medium dense, brown, dark gray in part, SAND, trace gravel and cobble, moist	17	33.0	5-6-7-15	1.0	7.0
34.0			18	35.0	10-16-8-12	1.5	8.0
		Medium dense-dense, brown, SAND AND GRAVEL, little silt and cobbles, moist	19	37.0	12-20-17-10	1.5	8.8
38.7			20	39.0	32-21-15-50/.25	1.0	10.0
		Dense, brown, SAND, little gravel, moist					
40.2			21	41.0	18-40-43-29	1.5	7.2
		Very dense, brown, SAND ANSD GRAVEL, little cobble, moist					
42.2							
42.6		Very dense, tan, SAND, trace coal, moist	22	43.0	43-50/.45	0.4	11.4
		Very dense, brown, gray in part, SAND AND GRAVEL, some cobbles, moist	23	45.0	15-13-22-23	1.2	8.0
46.0			24	47.0	23-17-23-24	2.0	8.1
		Dense, brown, GRAVEL, some sand, little cobbles, saturated					
48.0			25	49.0	17-15-16-22	2.0	4.6
		Dense, brown, SAND, trace gravel, wet	26	51.0	12-12-17-21	2.0	5.9

CDF002178

WATER DEPTH: During Drilling 46.0 ft. Upon Compl. Dry ____Hrs. after Compl. N.R.
Weather: _____ Remarks: _____

R&R INTERNATIONAL INC

BORING NO. B-6 (cont.)

ELEV. _____

DRILLING LOG

Project Hydrogeological Site Assessment

Project No. 002420

Depth (ft)	Graphic Log	Material Description	Sample No	Sample Depth	Blows/0.5'	REC (ft.)	PID (ppm)
53.0		TERMINATION DEPTH = 53.0 FEET					

WATER DEPTH: During Drilling 46.0 ft. Upon Compl. Dry ____ Hrs. after Compl. N.R.

Weather: Remarks:

R&R INTERNATIONAL, INC

BORING NO. B-7

ELEV. _____

DRILLING LOG

Client Hammontree & Associates, Limited

Project Hydrogeological Site Assessment — Project No. 002420

Location Canton Drop Forge & Manufacturing Co.

Date: Started 12-3-92 — Completed 12-3-92 — Driller Northcoast

Sampler: Dia 2 ins — Type s/s — Hammer Wt 140 lbs — Fall 30 ins

Casing: Dia 4.25 ins — Type HSA — Hammer Wt _____ — Fall _____

Water/Mud used in drilling: Yes _____ No * — Geologist/Engineer K Valek

Depth (ft)	Graphic Log	Material Description	Sample No	Sample Depth	Blows/0.5'	REC (ft.)	PID (ppm)
		Medium dense, brown, SILT, trace sand and gravel, moist	1	1.0	10-10-12-20	1.5	10.6
1.5		Dense, black (stain?), SILT, trace wood, little coal?, hydrocarbon (?) odor, moist	2	3.0	26-26-16-17	1.8	5.5
4.0		Dense, brown, SILT, little sand, trace gravel, moist	3	5.0	5-6-8-7	1.8	3.8
5.0		Loose-medium dense, brown, trace of dark gray and red-brown, SANDY SILT, some gravel, moist	4	7.0	5-6-4-5	1.3	1.2
			5	9.0	3-2-2-3	1.0	4.2
			6	11.0	2-2-3-2	0.5	3.7
12.5		Loose-medium dense, brown, SAND AND GRAVEL, trace cobbles, moist	7	13.0	2-1-2-3	0.5	2.2
			8	15.0	4-5-5-5	0.5	3.4
		Note: Mottled brown, red-brown with trace dark gray	9	17.0	2-2-5-9	0.7	4.5
			10	19.0	7-9-10-20	1.5	3.0
		Note: Little cobbles, soil dense-very dense	11	21.0	26-45-50/.5	0.2	4.1
			12	23.0	20-25-20-26	1.2	6.1

CDF002180

WATER DEPTH: During Drilling 48.4 ft. — Upon Compl. Dry — _____ Hrs. after Compl. N.R.

Weather: _____ — Remarks: _____

K&K INTERNATIONAL, INC.

BORING NO. B-7 (cont.)
ELEV. _____

DRILLING LOG

Project Hydrogeological Site Assessment — Project No. 002420

Depth (ft)	Material Description	Sample No	Sample Depth	Blows/0.5'	REC (ft.)	PID (ppm)
		13	25.0	32-32-26-31	1.5	5.8
		14	27.0	18-29-32-50/.2	1.2	6.2
		15	29.0	40-35-31-27	1.5	3.4
		16	31.0	40-30-25-15	1.5	11.1
		17	33.0	7-9-10-10	1.2	9.7
	Note: Mottled brown and dark gray 34.5-35.0 feet	18	35.0	6-11-18-16	1.0	7.7
		19	37.0	13-17-13-13	1.5	10.8
		20	39.0	17-29-26-17	1.3	9.6
		21	41.0	19-15-14-21	1.8	7.5
42.5						
42.9	Medium dense, brown, SAND, moist	22	43.0	19-22-20-25	2.0	5.1
43.5	Medium dense, brown, SAND AND GRAVEL, little cobbles, moist	23	45.0	18-43-32-26	1.5	4.5
46.0	Very dense, brown, SAND, some gravel, trace cobble, moist	24	47.0	7-9-8-10	1.5	1.4
	Dense, brown, SAND AND GRAVEL, little cobbles, moist cobbles light gray in part	25	49.0	5-7-11-18	2.0	1.8
48.4	Medium dense-dense, brown, SAND, trace gravel, wet	26	51.0	6-14-26-28	2.0	1.5
	Note: Soil saturated; heaving sands					
	Note: Sand light gray					

CDF002181

WATER DEPTH: During Drilling 48.4 ft. Upon Compl. Dry ____ Hrs. after Compl. N.R.
Weather: _____ Remarks: _____

R&R INTERNATIONAL, INC

BORING NO. B-7 (cont.)
ELEV. _____

DRILLING LOG

Project Hydrogeological Site Assessment
Project No. 002420

Depth (ft)	Graphic Log	Material Description	Sample No	Sample Depth	Blows/0.5'	REC (ft.)	PID (ppm)
55.0		TERMINATION DEPTH = 55.0 FEET					

CDF002182

WATER DEPTH: During Drilling 48.4 ft. Upon Compl. Dry ____Hrs. after Compl. N.R.
Weather: _____ Remarks: _____

CANTON DROP FORGE

2(b)

TELECOPIER COVER SHEET

PLEASE DELIVER THE FOLLOWING PAGES TO:

NAME: ED KARKALIK

FIRM: _____

CITY: _____

PHONE: _____

FROM:

NAME: KEITH HOUSEKNECHT

FIRM: CANTON DROP FORGE

CITY: CANTON, OHIO

TOTAL NUMBER OF PAGES 10 INCLUDING COVER SHEET.

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TELEPHONE: (330) 477-4511, EXT. 188

==========

ED

3 BORINGS CLOSE TO LAGOON #2

MW-5 IS MOST IMPORTANT

Keith

CDF002183

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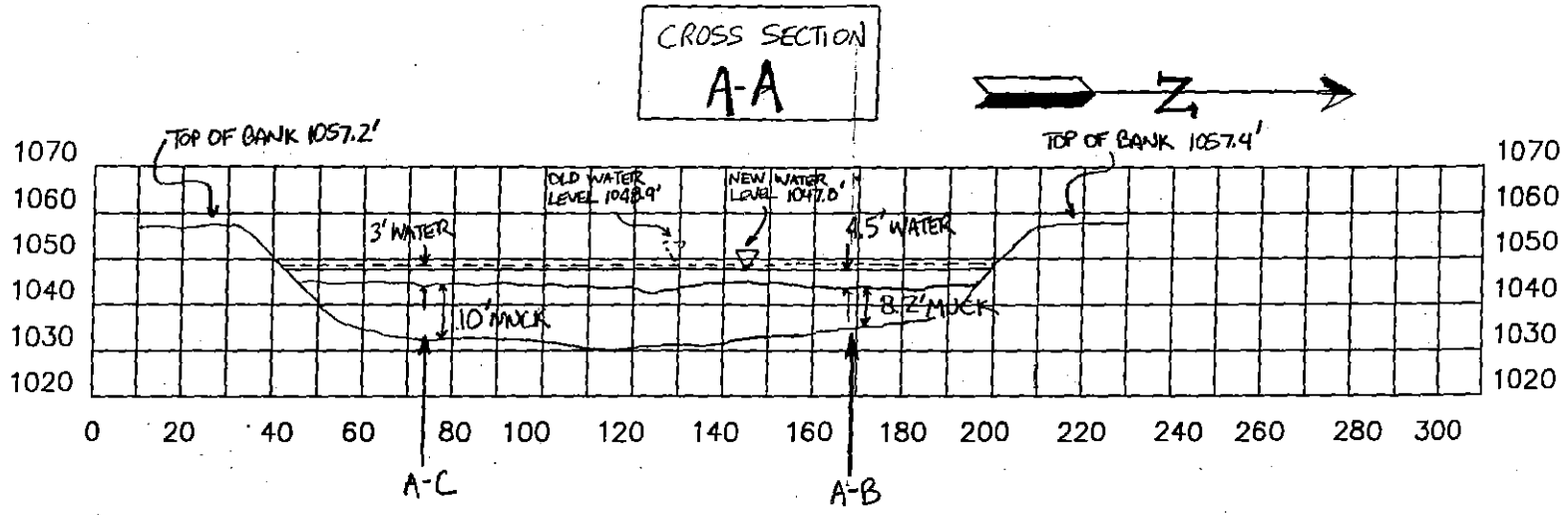
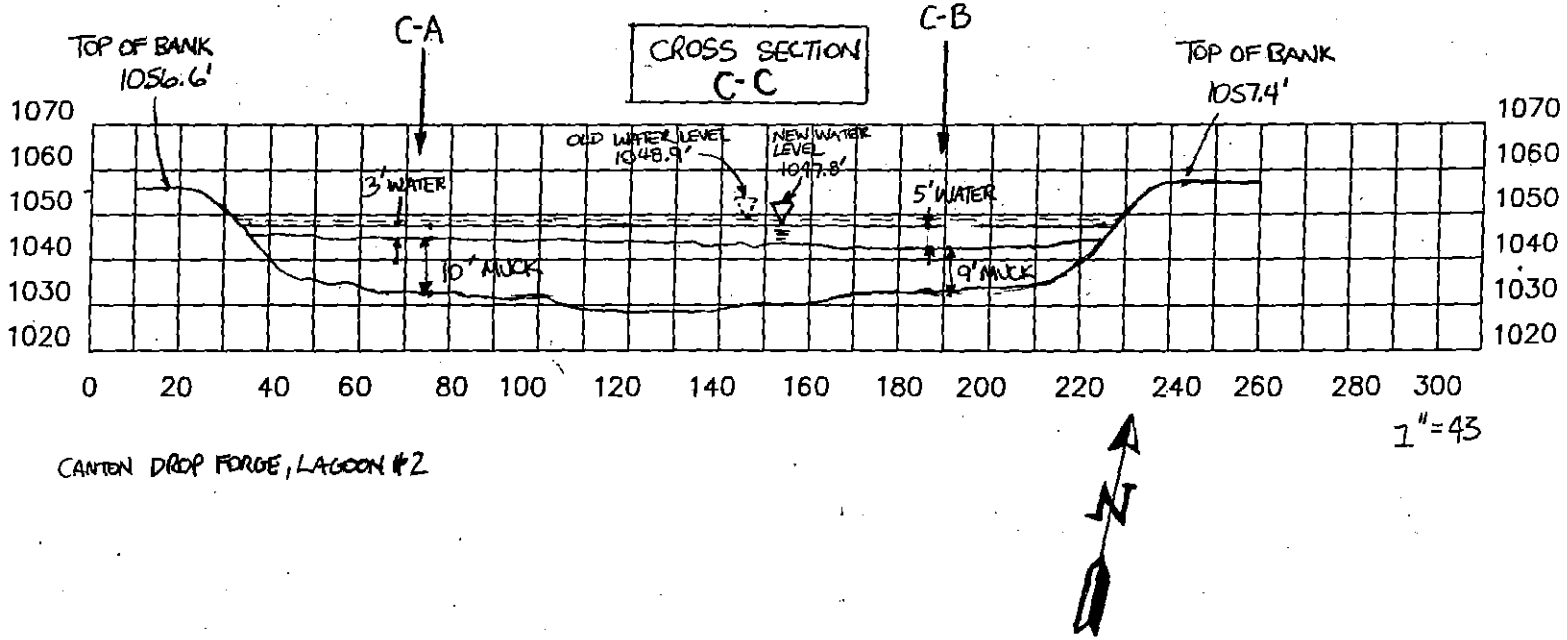
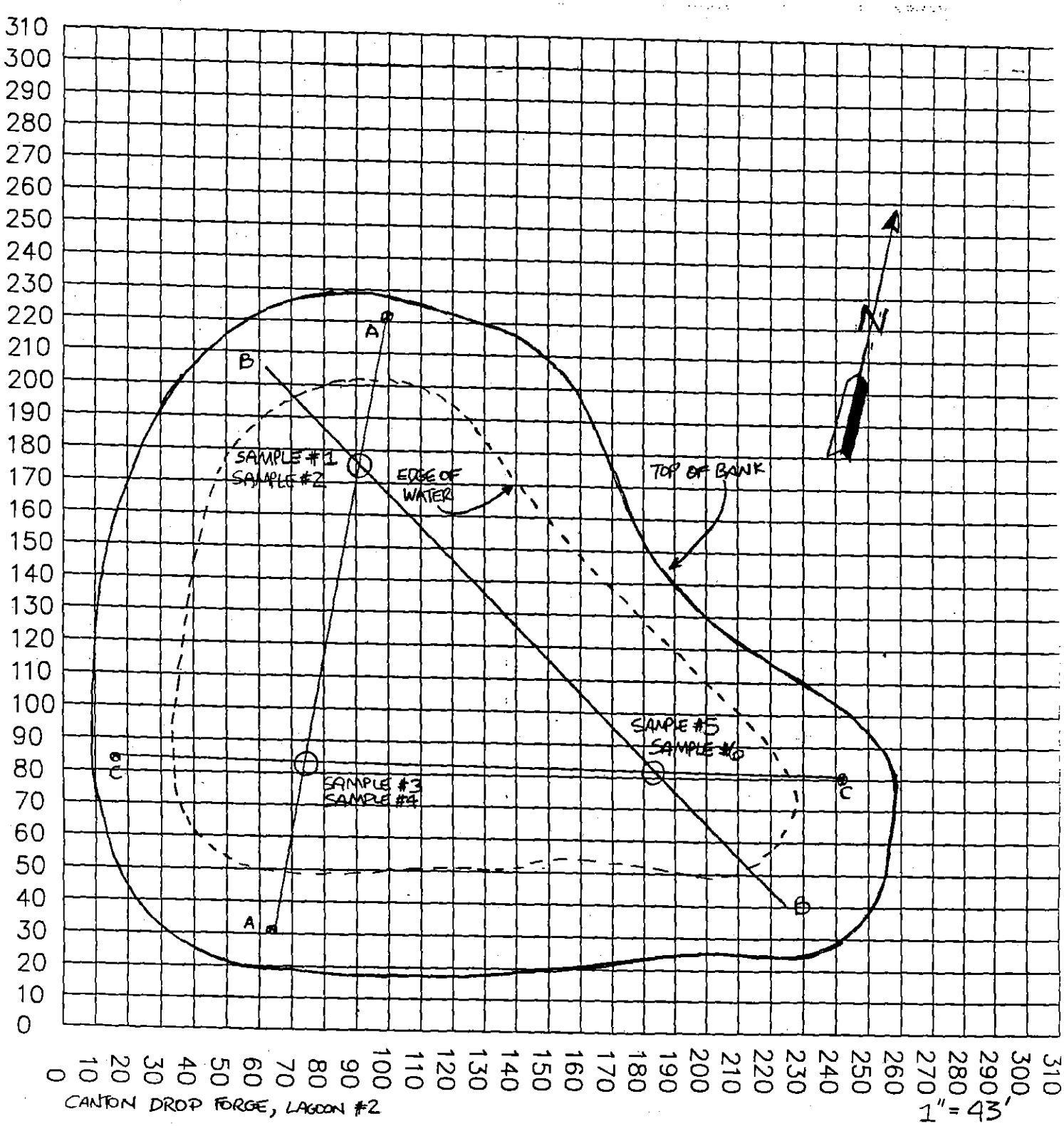




CANTON DROP FORGE, LAGOON #2

CDF002184

SAMPLE#	LOCATION	DEPTH RANGE (FEET)
1	A - B	8.7 - 11.2
2	A - B	4.5 - 8.7
3	C - A	12.5 - 14.5
4	C - A	3 - 12.5
5	B - C	10.3 - 14
6	B - C	5 - 10.3



CANTON DROP FORGE

2(b)

TELECOPIER COVER SHEET

PLEASE DELIVER THE FOLLOWING PAGES TO:

NAME: ED KARKALIK

FIRM: _____

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CITY: CANTON, OHIO

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CDF002186

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CANTON DROP FORGE

2(b)

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PLEASE DELIVER THE FOLLOWING PAGES TO:

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FIRM: CANTON DROP FORGE

CITY: CANTON, OHIO

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THIS IS THE UNIT I WAS THINKING ABOUT ON FRIDAY

SLUDGE BUSTER

VAMM

FROM RANDY FARNOS

CDF002187

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